

AMENDMENTS TO THE CLAIMS:

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1.(original): A traffic control method in a network system comprising an ATM (Asynchronous Transfer Mode) network, plural frame relay networks respectively connected to the ATM network through channels and plural terminals respectively connected to the plural frame relay networks through channels, said traffic control method comprising steps of:

measuring a data quantity transmitted through each channel;

operating a traffic restrictive level corresponding to the data quantity of each channel which is measured, per channel, wherein the traffic restrictive level is a level to prevent excess of contract cell rate of the ATM network and has a plurality of levels; and

performing a traffic restrictive process corresponding to a level of the traffic restrictive level which is operated about each channel.

2.(currently amended ): A traffic control method according to ~~the~~ claim 1, wherein the data quality is measured as to data transmitted from each of the plural frame relay networks to the ATM network through ~~the~~ each channel.

3.(currently amended ): A traffic control method according to ~~the~~ claim 1, further comprising:

a step of detecting a traffic restrictive class set for ~~the~~ each channel; and

a step of performing the traffic restrictive process corresponding to the traffic restrictive class is detected.

4.(currently amended ): A traffic control method according to ~~the~~ claim 1, wherein said traffic restrictive process comprises a process for writing information indicating that a congestion occurs to data transmitted through ~~the~~ each channel.

5.(currently amended ): A traffic control method according ~~the~~ claim 1, wherein said traffic restrictive process comprises a process for discarding data transmitted through ~~the~~ each channel.

6.(currently amended ): A traffic control method according ~~the~~ claim 1, wherein said traffic restrictive process comprises a process for transmitting a ~~message~~ message indicating that a congestion occurs to a transmitting terminal of data transmitted through ~~the~~ each channel.

7.(currently amended ): A traffic control method according to ~~the~~ claim 1, wherein said traffic restrictive process is performed based on a maximum transmission rate set for ~~the~~ each channel.

8.(currently amended ): A traffic control method according to ~~the~~ claim 1, wherein at least one of the plural terminals is connected to the ATM network through no frame relay network.

9.(original): A network system comprising:  
an ATM (Asynchronous Transfer Mode) network;  
plural frame relay networks respectively connected to the ATM network through channels;

plural terminals respectively connected to the plural frame relay networks through channels;

a data quantity measurement portion measuring a data quantity transmitted through each channel;

a restrictive level operation portion operating a traffic restrictive level corresponding to the data quantity of each channel measured by said data quantity measurement portion, per channel, wherein the traffic restrictive level is a level to prevent excess of contract cell rate of the ATM network and has a plurality of levels; and

a traffic control portion performing a traffic restrictive process corresponding to a level of the traffic restriction level operated about each channel by said restrictive level operation portion.

10.(original): A network system comprising:

an ATM (Asynchronous Transfer Mode) network;

plural frame relay networks respectively connected to the ATM network through channels;

plural terminals respectively connected to the plural frame relay networks through channels;

a data quantity measurement portion measuring a data quantity transmitted through each channel;

a restrictive level operation portion operating a traffic restrictive level corresponding to the data quantity of each channel measured by said data quantity measurement portion, per channel, wherein the traffic restrictive level is a level to prevent excess of contract cell rate of the ATM network and has a plurality of levels;

a restrictive process storage portion storing information of a traffic restrictive process corresponding to a level of the traffic restrictive level operated by said restrictive level operation portion about each channel; and

a traffic control portion reading out the information of the traffic restrictive process corresponding to the traffic restrictive level operated by said restrictive level operation portion about each channel from said restrictive process storage portion and performing the traffic restrictive process corresponding to the information read out from said restrictive process storage portion to each channel.

11.(original): A network system according to claim 10, wherein at least one of the plural terminals is connected to the ATM network through no frame relay network.

12.(original): A frame relay switch in plural frame relay networks in a network system comprising an ATM (Asynchronous Transfer Mode) network, said plural frame relay networks respectively connected to the ATM network through channels and provided with plural frame relay switch, and plural terminals respectively connected to the plural frame relay networks through channels, said frame relay switch comprising:

a data quantity measurement portion measuring a data quantity transmitted through each channel;

a restrictive level operation portion operating a traffic restrictive level corresponding to the data quantity of each channel measured by said data quantity measurement portion, per channel, wherein the traffic restrictive level is a level to prevent excess of contract cell rate of the ATM network and has a plurality of levels;

a restrictive process storage portion storing information of a traffic restrictive process corresponding to a level of the traffic restrictive process corresponding to a level of the

traffic restrictive level operated by said restrictive level operation portion about each channel;  
and

B2 a traffic control portion reading out the information of the traffic restrictive  
process corresponding to the traffic restrictive level operated by said restrictive level operation  
portion about each channel and performing the traffic restrictive processes corresponding to the  
information read out from said restrictive process storage portion to each channel.

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